WE CLAIM:

1. In combination, an aircraft wing and fuselage, comprising

a) said wing having camber at or near the wing leading edge which has blunted sharpness,

b) the wing having leading edge sweep less than about 20°,

c) the wing having thickness to chord ratio less than about 3% as a spanwise average, and

d) said fuselage having indentation along the wing side thereof, and lengthwise of the fuselage.

2. The combination of claim 1 wherein the wing at each side of the fuselage including said indentation has generally trapezoidal configuration.

3. The combination of claim 1 including a tail at the aft end of the fuselage, there being engine nacelles at opposite sides of the fuselage, and located between the wing and tail.

4. The combination of claim 1 wherein the wing has maximum thicknesses at locations along the wing from root to outer tip length, the ratio of said maximum thickness to chord length at said locations varying from about 3.5 to about 1.5.

5. The combination of claim 4 wherein at each of said locations the wing tapers forwardly and rearwardly from the zone of maximum thickness, with generally convex upper and lower surfaces designed to maintain a smooth, favorable pressure gradient from the slightly blunted leading edge condition, to aft locations along the wing at subsonic design flight conditions.

6. The combination of claim 1 wherein at each of said locations, the wing tapers forwardly and rearwardly from said zone of maximum thickness, throughout the wing length.

7. The combination of claim 1 wherein the wing at each side of the fuselage has a root length which subtends said indentation at said side.

8. The combination of claim 2 wherein the wing has leading edge sweep such as necessary to limit crossflow pressure gradients to levels which will not cause premature boundary layer transition at the design flight conditions.

9. The combination of claim 1 wherein the wing leading edge has blunted sharpness along substantially its entire length where the bluntness at each spanwise station is about 1/2% to 3% of the maximum airfoil thickness at said station.

10. In combination, an aircraft wing and fuselage, comprising

a) said wing having maximum thickness extending spanwise, said maximum thickness decreasing from a primary wing zone proximate the fuselage indentation to a secondary wing zone at a selected distance from the fuselage centerline,

b) said fuselage having indentation along the wing side thereof, and lengthwise of the fuselage,

c) said maximum thickness to chord radio, t/c remaining less than about 3.5% from said secondary zone to the wing tip.

11. The combination of claim 10 wherein said wing has camber at or near the wing leading edge which has blunted sharpness.

12. The combination of claim 10 wherein the wing at each side of the fuselage including said indentation has trapezoidal configuration.

13. The combination of claim 11 including a tail at the aft end of the fuselage, there being engine nacelles at opposite sides of the fuselage, and located between the wing and tail.

14. The combination of claim 11 wherein said maximum thicknesses are associated with wing chord locations, at each of which the wing tapers forwardly and rearwardly, from the zone of maximum thickness with convex upper and lower surfaces designed to maintain a smooth, favorable pressure gradient from the slightly blunted leading edge, as far aft along the wings surface as feasible at subsonic design flight conditions.

15. The combination of claim 12 wherein the wing at each side of the fuselage has a root length which subtends said indentation at said side.

16. The combination of claim 13 wherein the tail tapers forwardly and rearwardly from zone of maximum thickness, with generally convex upper and lower surfaces designed to maintain a smooth, favorable pressure gradient condition from the slightly blunted leading edge, to locations as far aft along the tail as possible at subsonic design flight conditions.

17. In combination, an aircraft wing and fuselage, comprising

a) said wing having camber at or near the wing leading edge which has blunted sharpness,

b) the wing having leading edge low sweep angularity characterized in that crossflow instability is reduced to a subcritical level over the majority of the wing.

c) the wing having thickness to chord ratio less than about 3% as a spanwise average, and

d) said fuselage having indentation along the wing side thereof, and lengthwise of the fuselage.